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**PHOTOGRAPHIC
INTERPRETATION
REPORT**

**NATIONAL PHOTOGRAPHIC
INTERPRETATION CENTER**

**MICROWAVE FACILITIES BETWEEN
LOGINOVO AND ISIL-KUL, USSR**

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MICROWAVE FACILITIES BETWEEN LOGINOVO AND ISIL-KUL, USSR

1. This report describes a microwave relay line, consisting of 16 microwave, a TV microwave, and two TV facilities between the Soviet cities of Sverdlovsk and Isil-kul. (Figure 1). This relay line is divided into two separate links. One is a R60/120 microwave link between Loginovo and Kurgan. The second link consists of nine facilities, containing unidentified microwave equipment mounted on towers and spaced about 25 nautical miles (nm) apart between Vargashi and Isil-kul. Microwave antennas could not be identified at either Sverdlovsk or Petropavlovsk.

2. The R60/120 link between Loginovo and Kurgan consists of seven microwave facilities. A typical facility contains a tower, a control building, and several support buildings. Each tower has four R60/120 dishes, two at the top and two at the base, in a periscopic arrangement (inset D, Figure 1). The Kurgan facility has one probable microwave dish antenna mounted on a TV tower.

3. The unidentified microwave relay system between Vargashi and Isil-kul contains nine facilities. The microwave towers at these facilities are similar in configuration but have varying heights (inset N, Figure 1). The unidentified line bypasses Petropavlovsk and extends north to Sokolovka. No microwave antennas were observed on the TV tower in Petropavlovsk.

4. This report provides details of microwave antenna equipment at the facilities and includes a location map with photographs and mensural and reference data. The tower heights are accurate to within the limitations given with a 95 percent confidence level.

- a. Sverdlovsk Radio/Relay & TV/FM Broadcast Center
56-49-40N 060-37-18E

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There were no microwave antennas observed on this television tower. This enclosed facility includes a large TV studio/control building, a cooling pond, two vehicle garages, a large L-shaped support building, and two small support buildings.

- b. Bazhenovo Radio/Relay Station
56-43-15N 061-21-45E

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This secured facility contains a self-supporting lattice tower, a control building, two support buildings, and a security building. The small scale of the photography precluded identification of microwave elements.

- c. Loginovo Radio/Relay Station
56-35-30N 061-18-35E

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This is a strela periscopic reflector facility which contains a guyed tower and a control facility. Small scale of the photography precluded further identification.

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- d. Kamensk Uralskiy Radio/Relay Station West
56-25-46N 061-50-15E

This is a strela periscopic reflector facility which contains a self-supporting lattice tower and a control building. There are two reflector dishes at the top and two reflector dishes at the base of the tower.

- e. Verkhny Yar Microwave Facility
56-15-45N 062-55-00E

This is a strela periscopic reflector facility which contains a tower, a control building, and two small support buildings. The small scale of the photography precluded further identification.

- f. Shadrinsk Radio/Relay Station
56-06-10N 063-36-10E

This is a strela periscopic reflector facility which contains a guyed tower, a control building, a security building, two barracks, and a support building. There are two reflector dishes at the top and two reflector dishes at the base of the tower.

- g. Kargapolye Radio/Relay Station
55-57-00N 064-29-10E

This is a strela periscopic reflector facility which contains a tower and a control building. The small scale of the photography precluded further identification.

- h. Ilovka Radio/Relay Station
55-36-50N 064-56-30E

This is a strela periscopic reflector facility which contains a guyed lattice tower and a control building. There are two reflector dishes at the top and two reflector dishes at the base of the tower.

- i. Kurgan Radio/Relay & TV/FM Broadcast Center
55-25-25N 065-16-20E

This secured facility contains a self-supporting lattice television tower

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with a probable R60/120 microwave dish, a control building, two barracks, and five support buildings. The Kurgan facility lies between the strela periscopic reflector, which runs to the northwest, and an unidentified microwave relay system, which runs to the south-southeast.

- j. Vargashi Radio/Relay Station
55-23-20N 065-49-55E

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This secured facility contains a self-supporting lattice tower with two support buildings. The small scale of the photography precluded identification of microwave elements.

- k. Lebyazhye Radio/Relay Station
55-15-35N 066-29-55E

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This secured facility contains a self-supporting lattice tower with four support buildings. The small scale of the photography precluded identification of microwave elements.

- l. Makushino Radio/Relay Station
55-13-40N 067-14-45E

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This secured facility consists of a self-supporting lattice tower and two support buildings. On photography of March 1970, guy positions for a second tower were under construction. On photography of December 1970, construction of this second tower was abandoned. The small scale of the photography precluded the identification of microwave elements.

- m. Petukhovo Radio/Relay Station
55-04-35N 067-55-35E

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This secured facility contains a self-supporting lattice tower and two support buildings. The small scale of the photography precluded identification of microwave elements.

- n. Mamlyutka Radio/Relay Station
54-57-40N 068-31-55E

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This secured facility contains a self-supporting tower and two support buildings. The small scale of the photography precluded identification of microwave elements.



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- o. Sokolovka Radio/Relay Station
55-04-45N 069-15-00E
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This secured facility contains a lattice tower with two support buildings. The small scale of the photography precluded identification of microwave elements.

- p. Petropavlovsk Radio/Relay & TV/FM Broadcast Center
54-52-43N 069-06-55E
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This secured facility contains a self-supporting lattice TV tower, two control buildings, and six support buildings. There are no microwave antennas observed on this tower.

- q. Tokushi Radio/Relay Station
54-51-20N 069-44-00E
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This secured facility contains a self-supporting tower and two support buildings. The small scale of the photography precluded identification of microwave elements.

- r. Bulayevo Radio/Relay Station
54-51-20N 070-26-00E
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This secured facility contains a self-supporting lattice tower and two support buildings. The small scale of the photography precluded identification of microwave elements.

- s. Isil-kul Radio/Relay & TV Relay Station
54-53-30N 071-13-30E
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This secured facility contains a self-supporting lattice tower, a second guyed tower, and a control building. The small scale of the photography precluded identification of microwave elements.

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FIGURE 1. MICROWAVE FACILITIES BETWEEN LOGINOVO AND ISIL - KUL, USSR

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REFERENCES

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MAP OR CHART

ACIC. ONC Sheet E-5, scale 1:1,000,000 (UNCLASSIFIED)

CPP. ONC Sheet D-4 & D-5, scale 1:1,000,000 (UNCLASSIFIED)

REQUIREMENT

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